

What is claimed is:

1. A process for producing a titanium oxide which comprises (i) a step of calcining a titanium compound in the presence of ammonia gas or (ii) steps of treating a titanium
5 compound with heat in the presence of ammonia gas and calcining the heat-treated titanium compound.

2. A process for producing a titanium oxide according to claim 1, wherein the titanium compound is treated with heat in the presence of ammonia gas before the calcination of the
10 titanium compound.

3. A process for producing a titanium oxide according to claim 1, wherein the titanium compound is a titanium hydroxide and a compound which generates ammonia in calcination is allowed to come in contact with said titanium hydroxide
15 before and/or in calcining the titanium hydroxide.

4. A process for producing a titanium oxide according to any one of claims 1 to 3, wherein the calcination is conducted at a temperature of from about 300°C to about 600°C.

5. A process for producing a titanium oxide according
20 to any one of claims 1 to 3, wherein the titanium oxide has an amorphous phase.

6. A process for producing a titanium oxide according to claim 2, wherein the heat treatment is conducted in the presence of steam.

25 7. A process for producing a titanium oxide according

to claim 2 or 6, wherein the titanium compound to be treated with heat has a fibrous shape.

8. A process for producing a titanium oxide according to claim 3, wherein the compound which generates ammonia in calcination is ammonia or ammonia solution.

9. A process for producing a titanium oxide according to claim 3, wherein the compound which generates ammonia in calcination is ammonium compound.

10. A process for producing a titanium oxide according to claim 3, wherein the titanium hydroxide is allowed to come in contact with the a compound which generates ammonia in calcination in amount of from about 0.1 % by weight to about 10% by weight in terms of nitrogen atom in the ammonia-generating compound based on the titanium hydroxide substantially containing no water.